

In re Application of: Michal DANIELY et al  
Serial No.:10/771,440  
Filed: February 5, 2004  
Office Action Mailing Date: August 10, 2007

Examiner: Duffy, Bradley  
Group Art Unit: 1643  
Attorney Docket: 26003

### REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-37, 39-55 and 57-73 are in this Application. Claims 1-36 have been withdrawn from consideration. Claims 37, 39-55 and 57-73 have been rejected under 35 U.S.C. § 112. Claims 37, 39-48, 51-55, 57-65 and 68-73 have been rejected under 35 U.S.C. § 102. Claims 37, 54, 55 and 71-73 have been rejected under 35 U.S.C. § 103. Withdrawn claims 1-36 have been canceled herewith. Claims 37, 54, 55, 72 and 73 have been amended herewith. Claims 41-53 and 58-71 have been canceled herewith. New claims 74-81 have been added herewith.

In a telephone interview graciously granted by the Examiner on October 9<sup>th</sup>, 2007, the following issues were discussed.

With respect to the priority, Applicants' representative stated that the claimed invention may be limited to "two staining methods" to thereby overcome the Examiner's priority rejection. The Examiner stated that such a limitation would be considered for establishing a priority from April 4<sup>th</sup>, 2003, and thus may be used to overcome the rejections with respect to the art of Daniely et al., Sept. 2003.

With respect to the Declaration, Applicants' representative stated that the Declaration would be amended to relate to the fact that an "oral presentation" rather than a "poster" was the nature of the disclosure made in the conference held on September 2003. The Examiner agreed to consider such a correction.

With respect to the 35 U.S.C. 112, first paragraph written description rejections, Applicants' representative stated that the claims may be limited to two staining methods: a morphological staining selected from the group consisting of May-Grünwald-Giemsa, Giemsa, Papanicolaou, and Hematoxylin-Eosin and FISH. The Examiner stated that such an amendment would probably overcome the 112 written description rejections and in a later telephone conversation on the date of the interview suggested to take out the word "morphological" from the amended claim.

With respect to the 102(a) rejections (Daniely as evidenced by Shimoni and Skacel), Applicants' representative stated that in view of the established priority from

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April 4<sup>th</sup>, 2003 and the corrected Declaration, the art of Daniely et al., 2003 should not be regarded as a prior art. The Examiner stated that such a statement will be favorably considered.

With respect to the 103(a) rejection (Skacel in view of US Patent No. 6,418,236), Applicants' representative suggested to amend the claims such that it is clear that both staining methods are employed on the same cells. The Examiner stated that such an amendment will be favorably considered.

**Priority**

The Examiner states that claims 37, 39-55 and 57-73 do not properly benefit from earlier filing because the instant claims recite the limitation "at least two stains", which is interpreted as two or more stains and support for using more than two stains was not found in U.S. Provisional Application No. 60/459,992. In addition, the Examiner states that the claims do not properly benefit under § 119 and/or 120 by the earlier filing date since the claims are rejected under 35 U.S.C. § 112, first paragraph, as lacking an adequate written description and a sufficiently enabling disclosure.

In order to expedite prosecution in this case, Applicants have elected to limit the claimed invention to "two staining method" to thereby overcome the Examiner's rejections and establish a priority from U.S. Provisional Application, No. 60/459,992.

Accordingly, the effective filing date of the claims should be the filing date of the U.S. Provisional Application, No. 60/459,992, April 4<sup>th</sup>, 2003.

**Declaration**

The Examiner states that the Declaration under 37 C.F.R. § 1.132 received on May 15, 2007 is insufficient to overcome the rejection of claims 37-48, 51-65 and 68-71 under 35 U.S.C. 102(a) as being anticipated by Daniely et al. (*Annales de Genetique*, 46:153, September 2003) as evidenced by Shimoni et al. 2002 and Skacel et al., 2001, and the rejection of claims 37, 49-50, 55 and 66-67 under 35 U.S.C. 103(a) as being unpatentable over Daniely et al., (September 2003) in view of US Patent 6,418,236 (2002) as set forth in the last Office action, because the Declaration

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identifies the prior art entitled "Combined analysis of morphology and FISH for the monitoring of bladder cancer" as a poster abstract and not as an abstract of an oral presentation in the FECC conference in September 2003.

Attached is a corrected Declaration under 37 C.F.R. § 1.132 which identifies the abstract entitled "Combined analysis of morphology and FISH for the monitoring of bladder cancer" (Annales de Genetique, 46:153, September 2003) as an oral presentation in the FECC conference which took place on September 2003.

In view of the corrected Declaration, Applicants believe to have overcome the rejections to claims 37-48, 51-65 and 68-71 under 35 U.S.C. 102(a) (Daniely et al. 2003, as evidenced by Shimon et al., 2002 and Skacel et al., 2001) and the rejections to claims 37, 49-50, 55 and 66-67 under 35 U.S.C. 103(a) (Daniely et al., 2003, in view of US Patent 6,418,236, 2002).

#### Amendments To The Claims

#### 35 U.S.C. § 112 Rejections

Grounds of Rejection maintained: The Examiner has maintained his rejections to claims 37, 39-55 and 57-73 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner states that the claimed methods will require the use of a structurally and functionally diverse genus of "stains" that have not been adequately described in the specification as filed and which do not share common structurally features that relate to their stated function. The Examiner's rejections are respectfully traversed. Claims 37, 55, 72 and 73 have been amended herewith. Claims 41-53 and 58-71 have been cancelled herewith.

In order to expedite prosecution of this case, Applicants have elected to limit claims 37, 55, 72 and 73 to staining the cells by May-Grünwald-Giemsa, Giemsa, Papanicolau, or Hematoxylin-Eosin and FISH, all of which are fully described in the specification, to thereby overcome the Examiner's rejections with respect to these claims.

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New grounds of Rejections: The Examiner has rejected claims 37, 39-55 and 57-71 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner states that the claims have been amended to recite "imaging said stained nucleated cells by at least two imaging modes, wherein one imaging mode of said at least two imaging modes being different from another imaging mode of said at least two imaging modes" as opposed to "exposing said stained nucleated cells to at least two imaging modes" and that in the cited Page 10, lines 30-33 and Page 11, lines 1-19, there does not appear to be support for the language of the claims. The Examiner's rejections are respectfully traversed. Claims 37 and 55 have been amended herewith. Claims 41-53 and 58-71 have been cancelled herewith.

In order to expedite prosecution of this case, Applicants have elected to exclude the language of "*at least two imaging modes, wherein one imaging mode of said at least two imaging modes being different from another imaging mode of said at least two imaging modes*" from amended claims 37 and 55, to thereby render moot the Examiner's rejections with respect to these claims.

In view of the claim amendments, Applicants believe to have overcome the 35 U.S.C. § 112, rejections.

#### 35 U.S.C. § 102 Rejections

Grounds of rejections maintained: The Examiner has maintained his rejections to claims 37, 39-48, 51-55, 57-65 and 68-73 under 35 U.S.C. 102(a) as being anticipated by Daniely et al. (Sept. 2003), as evidenced by Shironi et al. (2002) and Skacel et al. (2001). Specifically, the Examiner states that since US Provisional Appl. No. 60/459,992 does not provide support for more than two stains, the priority date of the instant claims is February 5<sup>th</sup>, 2004, and accordingly, Daniely et al., is available as prior art under 102(a). Furthermore, the Examiner states that the Declaration filed under 37 C.F.R. 1.132 is insufficient to overcome the rejection in this case as there is evidence that the disclosure of Daniely et al., was present publicly

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as an oral communication and not as a poster. The Examiner's rejections are respectfully traversed. Claims 37, 55, 72 and 73 have been amended herewith. Claims 41-48, 51-53, 58-65, 68-71 have been canceled herewith. A corrected Declaration is attached herewith.

Applicants point out that as discussed in the interview held on October 9<sup>th</sup>, 2007, by limiting the claims to only two staining methods (e.g., May-Grünwald-Giemsa and FISH) and correcting the Declaration signed by inventors to state that the abstract entitled "*Combined analysis of morphology and FISH for the monitoring of bladder cancer*" was presented as an oral presentation in the FECC conference held on September 2003 and not as a poster (as mistakenly stated in the previous Declaration), the priority of the instant application should be set for April 4<sup>th</sup>, 2003, the filing date of U.S. Provisional Application No. 60/459,992. Accordingly, the art of Daniely et al. (September 2003), either alone or with Shimon et al., or Skacel et al., cannot anticipate or render obvious the claimed invention since it is published after the established priority of the claimed invention and is Applicants' own invention.

The Examiner has further maintained his rejection to claims 37, 39-48, 52-53, 55, 57-65 and 69-70 under 35 U.S.C. 102(b) as being anticipated by Skacel et al. The Examiner's rejections are respectfully traversed. Claims 37 and 55 have been amended herewith. Claims 41-48, 52, 53 and 58-70 have been cancelled herewith.

In order to expedite prosecution in this case, Applicants have elected to limit the claimed invention to staining the cells with May-Grünwald-Giemsa and FISH, Giemsa and FISH, Papanicolau and FISH, or Hematoxylin-Eosin and FISH, which are not mentioned or suggested in Skacel et al., to thereby overcome the Examiner's rejections with respect to these claims.

In view of the above arguments and remarks Applicants believe to have overcome the 35 U.S.C. § 102(a), rejections.

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35 U.S.C. § 103 Rejections

Grounds of rejections maintained: The Examiner has maintained his rejections to claims 37, 54, 55 and 71-73 under 35 U.S.C. 103(a) as being unpatentable over Skacel et al., in view of Daniely et al. The Examiner's rejections are respectfully traversed. Claims 37, 55, 72 and 73 have been amended herewith. Claim 71 has been canceled herewith.

Applicants point out that as stated hereinabove with respect to 102(a) Rejections, in view of the claim amendments and corrected Declaration, the priority of the instant application should be from April 4<sup>th</sup>, 2003, the filing date of U.S. Provisional Application No. 60/459,992, therefore, the art of Daniely et al. (September 2003) should not be regarded as "prior art". Accordingly, the art of Skacel et al. in view of Daniely et al. cannot be regarded as patentability destroying of the instant application.

The Examiner has further maintained his rejections to claims 37, 49-51, 54-55, 66-68 and 71 under 35 U.S.C. 103(a) as being unpatentable over Skacel et al., in view of US Patent No. 6,418,236. Specifically, the Examiner states that Skacel teaches staining cells from voided urine with DAPI to look at the morphology and FISH and imaging the cells to identify and diagnose transitional cell carcinoma cells and that US Patent 6,418,236 teaches automated image analysis using a microscope capable of dual imaging, and that it would have been obvious to one of ordinary skill in the art to identify transitional cell carcinoma cells or diagnose bladder cancer from a urine sample by staining the urine sample with at least two stains as taught in Skacel and imaging the stained cells with the automated microscope capable of dual imaging as taught by US Patent 6,418,236. The Examiner's rejections are respectfully traversed. Claims 37 and 55 have been amended herewith. Claims 49-51, 66-68 and 71 have been cancelled herewith.

Applicants point out that in contrast to Skacel et al. which use DAPI to look at the morphology of the cells and FISH for chromosomal abnormalities, both of which are viewed under dark field, the currently amended claims 37 and 55 pertain to

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staining the cells with May-Grünwald-Giemsa, Giemsa, Papanicolau or Hematoxylin-Eosin (all of which are viewed under bright field) and FISH (which is viewed under dark field). In addition, as stated by Applicants in the previous response, US Patent 6,418,236 discloses analyzing different (parallel) tissue sections which are stained with Hematoxylin-Eosin (H/E), immunohistochemistry (IHC) or *in situ* hybridization (Column 1, lines 60-65 of US Patent 6,418,236), by pairing stored images of the different tissue sections (Column 2, lines 10-15; Column 5, lines 37-40, of US Patent 6,418,236). Thus, it is Applicants' position that the teachings of Skacel et al. (of using DAPI and FISH) in view of US Patent No. 6,418,236 (of viewing paired stored images of different tissue sections) could not anticipate a method of identifying transitional cell carcinoma or diagnosing bladder cancer by staining the same nucleated cells with May-Grünwald-Giemsa, Giemsa, Papanicolau or Hematoxylin-Eosin and FISH as now claimed. Applicants have elected to amend claims 37 and 55 so as to clarify that the same cells are being stained by two different stains. This is in sharp contrast to the teachings of US Patent No. 6,418,236 whereby two parallel slides are imaged. It should be noted that the amendment renders explicit what was already implicit and no new subject matter has been introduced.

The Examiner has further maintained his rejections to claims 37, 49-50, 55 and 66-67 under 35 U.S.C. 103(a) as being unpatentable over Daniely et al., in view of US Patent 6,418,236. The Examiner's rejections are respectfully traversed. Claims 37 and 55 have been amended herewith. Claims 49-50 and 66-67 have been canceled herewith.

Applicants point out that as stated hereinabove with respect to 102(a) Rejections, in view of the claim amendments and corrected Declaration, the priority of the instant application should be from April 4<sup>th</sup>, 2003, the filing date of U.S. Provisional Application No. 60/459,992, therefore, the art of Daniely et al. (September 2003) should not be regarded as "prior art". Accordingly, Daniely et al could not be regarded as patentability destroying either alone or in combination with other art (US Patent 6,418,236) since it is published after the established priority of the claimed invention.

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In view of the above claim amendments, arguments and remarks Applicants believe to have overcome the 35 U.S.C. § 103(a), rejections.

Support for new claims 74-81

Support for new claims 74, 76, 78 and 80 can be found in Page 25 (lines 25-28); Support for new claims 75, 77, 79 and 81 can be found in Page 25 (lines 28-32) of the instant application.

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In view of the above amendments and remarks it is respectfully submitted that claims 37, 39, 40, 54, 55, 57, 72-81 are now in condition for allowance. A prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,



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Date: November 8, 2007

Enclosures:

- Request for Continued Examination (RCE); and
- Executed Declaration.